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## [54] PORTABLE HYBRID COMMUNICATION SYSTEM AND METHODS

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## [57] ABSTRACT

A laptop device includes a personal computer, a cellular transceiver, a speakerphone, and a hybrid communications control unit. The device has connectors for attaching a headset, cellular control unit, land telephone line, and additional speakers and microphones. The microprocessor-controlled hybrid communications control unit includes a modem, a data access arrangement, and a tone generator as well as digital, analog, and power switches. The hybrid communications control unit switches the communications components and provides, under program control, the proper protocols, level, and impedance matching to connect the modem, speakerphone, headset, speaker/microphone, or cellular control unit to the landline or to the cellular network via the transceiver. Matching and switching operations are automatic and transparent to the user. The unit can also connect two of the terminal devices or connect the cellular and landlines for call relaying. The device is capable of connecting plural calls at the same time. The hybrid communications control unit may be controlled by its internal firmware, by toggle switches, or by commands issued from the personal computer.

24 Claims, 10 Drawing Sheets

